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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| APPEAL BRIEF	Atty. Docket No. **CROSS1490**

Applicant **Stephan G. Dale**	
Application Number **10/064,080**	Filed **06/10/2002**
Title **System and Method for Inquiry Caching**	
Group Art Unit **2155**	Examiner **Hamza, Faruk**
Confirmation No. **8808**	

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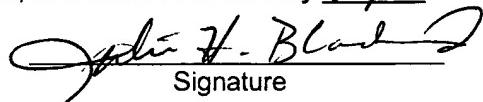
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Further to the Notice of Appeal filed April 19, 2006, Appellant presents this Appeal Brief. Appellant respectfully requests that this appeal be considered by the Board of Patent Appeals and Interferences.

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I. REAL PARTY IN INTEREST

United States Patent Application Serial No. 10/064,080 (the "Application") is owned by Crossroads Systems Inc., a corporation organized and existing under and by virtue of the laws of the State of Texas, and having its principal place of business at 11000 N. Mo-Pac Expy. Austin, TX 78759 and Hewlett Packard Company, a Delaware Corporation, having its principle place of business at 3000 Hanover Street Palo Alto, California.

II. RELATED APPEALS AND INTERFERENCES

Appellants believe that there are no related appeals or interferences.

III. **STATUS OF CLAIMS**

Claims 1-22 of the Application were filed in the original filing of the Application on June 10, 2002.   Claims 1, 11, 18 and 22 were amended in Applicant's Reply to Office Action dated April 15, 2005. Claims 20 and 21 were withdrawn in Applicant's Reply to Restriction Requirement filed November 16, 2005.   Claims 1-19 and 22 stand finally rejected and Claims 20-21 are withdrawn from consideration. Claims 1-19 and 22, which are rejected under 35 U.S.C. §102(e), are the subject of this appeal. A copy of Claims 1-19 and 22 is included in the Appendix hereto.

IV. STATUS OF AMENDMENTS

No amendments were filed subsequent to the final rejection. The first amendment to the application, filed on April 15, 2002 amended Claims 1, 11, 18 and 22. The Reply to Restriction Requirement filed November 16, 2005 withdrew Claims 20-21. The Appendix hereto reflects the current state of the claims as amended by the April 15, 2005 Reply to Office Action and the status of claims 20-21 as withdrawn.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Independent Claims 1, 11 and 22 are subject to the present appeal.

Claim 1 recites:

> A method of using a router to cache inquiry data corresponding to a
>   target device in a network having a plurality of client devices, the
>   method comprising:
> storing inquiry data corresponding to a target device in a cache
>   memory;
> receiving a request for the inquiry data corresponding to the target
>   device;
> reading the inquiry data from the cache memory; and
> providing the inquiry data corresponding to the target device in
>   response to the request.

The recited invention, according to Claim 1, performs the steps of "storing inquiry data corresponding to a target device", "receiving a request for the inquiry data", "reading the inquiry data from the cache memory" and "providing the inquiry data corresponding to the target device."

Claim 11 recites:

> A device comprising:
> a router configured to route data between one or more hosts
>   and one or more target devices; and
> a cache memory coupled to the router;
> wherein the router is configured to store inquiry data
>   received from the one or more target devices and to
>   provide at least a portion of the stored inquiry data in
>   response to a request for inquiry data corresponding to
>   one of the target devices that is busy.

Thus, according to Claim 11, the router stores inquiry data from one or more target devices and provides inquiry data in response to a request for inquiry data corresponding to a target device that is busy.

Claim 22 recites:

> A computer readable medium, wherein the computer
>   readable medium contains one or more instructions
>   which are configured to cause a computer to perform the
>   method of using a router to cache inquiry data

> corresponding to a target device in a network having a
> plurality of client devices, the method comprising:
> storing inquiry data corresponding to a target device in a
> cache memory;
> receiving a request for the inquiry data corresponding to the
> target device;
> reading the inquiry data from the cache memory; and
> providing the inquiry data corresponding to the target device
> in response to the request.

Claim 22, thus includes instructions for "storing inquiry data corresponding to a target device", "receiving a request for the inquiry data", "reading the inquiry data from the cache memory" and "providing the inquiry data corresponding to the target device."

Claims 1, 11 and 22 provide systems and methods for caching inquiry data for a target device so that requests for the inquiry data (i.e., inquiry commands) "to the target device can be serviced when the target device is busy processing previously serviced commands." *See* Application, ¶0009. Inquiry commands are commands "which request data that is, for the most part, static." *See* Application ¶0005. The inquiry data requested by the inquiry command is data that "typically relates to the device itself, rather than data which [it] is designed to store or generate" and is generally static data such "as serial number, manufacturer, configuration, version number, or similar data" but "may also include data that changes relatively infrequently." *See* Application ¶0005.

Embodiments of the present invention include a method implemented on a router to respond to inquiry commands. As shown in FIGRUE 2, a router routes commands, including inquiry commands, from clients to target devices. *See* Application ¶0023. The router is coupled to a cache" which is "designed to store inquiry data" associated with a target device. *See* Application ¶0024. When a router receives an inquiry command destined for a target device, the router can forward the inquiry command to the target device. *See* Application ¶0029. "After the target device processes that command, it provides data responsive to the command. *See* Application ¶0029. The router does two things with the data it receives back from the target device, "it stores the data in it cache; and it forwards the data to the host device that originally requested it." *See* Application ¶0029. Thus, the inquiry data corresponding to the target device is stored in the cache in addition to being forwarded to the requesting host.

When the router receives a subsequent request for the inquiry data corresponding to the target device, the router can "checks the cache to determine whether or not it has the data." See Application ¶0030. "If the data is stored in the cache, the data is read fro the cache and then forwarded to the host device in response to the inquiry command." See Application ¶0030. In other words, the router can provide a response to the inquiry command using inquiry data already stored at the router. Consequently, if the target device is busy processing another command, the inquiry command can be serviced from the cache of the router.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Whether claims 1-10 and 22 are unpatentable under 35 U.S.C. §102(e) over U.S. Patent No. 6,725,272 B1 ("Susai"). More specifically, the Examiner incorrectly asserts that the Susai reference discloses the limitations of the invention in question.

Even more specifically, the Examiner incorrectly asserts that, as per claim 1, Susai teaches method of using a router to cache inquiry data corresponding to a target device in a network having a plurality of client devices comprising:

storing inquiry data corresponding to a target device in a cache memory (Fig 2, column 4, lines 16-33; column 5, lines 66-column 6, lines 17);

receiving a request for the inquiry data corresponding to the target device(Fig 2, column 4, lines 16-33; column 5, lines 66-column 6, lines 17, Susai discloses storing inquiry data corresponding to a target device) ;

reading the inquiry data from the cache memory (Fig 2, column 4, lines 16-33; column 5, lines 66-column 6, lines 17, Susai discloses receiving a request for the inquiry data); and

providing the inquiry data corresponding to the target device in response to the request (Fig 2, column 4, lines 16-33; column 5, lines 66-column 6, lines 17, Susai disclose reading inquiry data from a cache).

Additionally, the Examiner incorrectly asserts that, as per Claim 11, Susai teaches a device comprising:

a router configured to route data between one or more hosts and one or more target devices (Fig. 2, Column 4, lines 16-49, Susai discloses a router); and

a cache memory coupled to the router (Fig. 2, Column 4, lines 16-33, Susai discloses memory);

wherein the router is configured to store inquiry data received from the one or more target devices and to provide at least a portion of the stored inquiry data in response to a request for inquiry data corresponding to one of the target devices that is busy (Column 4, lines 16-33; Column 5, lines 66 – Column 6, line 41, Susai disclose router storing inquiry data).

Finally, with respect to Claim 22, the Examiner incorrectly asserts that Susai teaches a computer readable medium, which are configured to cause a computer to perform a method comprising:

storing inquiry data corresponding to a target device in a cache memory (Fig 2, column 4, lines 16-33; column 5, lines 66-column 6, lines 17, Susai discloses storing inquiry data corresponding to target devices);

receiving a request for the inquiry data corresponding to the target device(Fig 2, column 4, lines 16-33; column 5, lines 66-column 6, lines 17, Susai discloses storing inquiry data corresponding to a target device) ;

reading the inquiry data from the cache memory (Fig 2, column 4, lines 16-33; column 5, lines 66-column 6, lines 17, Susai discloses receiving a request for the inquiry data); and

providing the inquiry data corresponding to the target device in response to the request (Fig 2, column 4, lines 16-33; column 5, lines 66-column 6, lines 17, Susai disclose reading inquiry data from a cache).

VII.   ARGUMENT

REJECTIONS UNDER 35 U.S.C. §102(e) OVER SUSAI

1   Introduction

The Examiner rejected Claims 1, 11 and 22 under 35 U.S.C. 102(e) as being anticipated by the Susai reference. Appellant respectfully disagrees with the Examiner.

To anticipate a claim, a single reference (or event) must expressly or inherently disclose each and every limitation of a claim. See *Moba B.V. v. Diamond Automation*, Inc., 325 F.3d 1306, 1233 (Fed. Cir. 2003) and *Hybritech Inc. v. Monoclonal Antibodies*, Inc., 802 F.3d 1367, 1379 (Fed. Cir. 1986). The entire prior art reference may be reviewed for anticipatory material, not just the claims of the reference (if the reference is a patent or printed patent publication).

The prior art must sufficiently describe the claimed invention to have placed the public in possession of it. See *Minnesota Mining & Mfg. Co. v. Johnson & Johnson Orthopedics*, Inc., 976 F.2d 1559, 1572 (Fed. Cir. 1992). However, the prior art does not have to use the same terminology. *In re Bond*, 910 F.2d 831, 832-33 (Fed. Cir. 1990).

To constitute an anticipatory reference, the prior art must contain an enabling disclosure. See *Chester v. Miller*, 906 F.2d 1574, 1576 n.2 (Fed. Cir. 1990) and *Helifix Ltd. v. Blok-Lok, Ltd.*, 208 F.3d 1339 (Fed. Cir. 2000). A reference contains an enabling disclosure if a person of ordinary skill could have combined the description of the invention in the prior art reference with his own knowledge of the art to have placed himself, and thereby the public, in possession of the invention. See *In re Donohue*, 766 F.2d 531, 533 (Fed. Cir. 1985) and *In re Paulsen*, 30 F.3d 1475, 1479 (Fed. Cir. 1994).

The test for anticipation is symmetrical to the test for infringement. See *Lewmar Marine Inc. v. Barient, Inc.*, 827 F.2d 744, 747 (Fed. Cir. 1987), cert. denied, 484 U.S. 1007 (1988) (stating "that which would literally infringe [a claim] if later in time anticipates if earlier than the date of invention.").

The Appellant respectfully submits that the Susai reference does not disclose or teach each and every claim limitation of Claims 1, 11 and 22 and therefore does not anticipate Claims 1, 11 and 22.

2. Background

In the Background of the Invention section of the Application, the Appellant describes the manner in which requests for inquiry data were previously handled. Conventionally, inquiry commands are treated the same as other commands received by a target device and are serviced when the device becomes available. *See* Application, ¶0007. This can cause problems if a previous command takes too long to process because the inquiry command will not be processed until the previously received command is serviced. *See* Application, ¶0007. If the inquiry command is blocked long enough, the inquiry command will time out. *See* Application, ¶0007. As a result, the host issuing the inquiry command may assume that the target device is no longer operational or longer connected to the network even if the target device is connected and operational. *See* Application, ¶¶0006-0007.

Susai is related to handling of requests to a requested server that is busy. Specifically, Susai is related to Internet client server applications, and more specifically, to guaranteeing network client-server response time while providing a way of putting the client on-hold when the response time temporarily prohibits access to a requested server. *See* Susai, col. 1, lines 17-21.

In Susai, a network includes a plurality of clients, a plurality of servers, an interface unit 202 and one or more "on-hold" servers 204. *See* Susai, col. 4, lines 38. In the preferred embodiment, the interface unit is an intelligent network interface card with a CPU inside a server. *See* Susai, col. 4, lines 17-19. Preferably all Internet requests from clients to servers go through interface unit 202. *See* Susai, col. 4, lines 40-42. When interface unit 202 receives an Internet request directed to a server, interface unit 202 determines the identity of the requested server. *See* Susai, col. 5, lines 11-12. Once interface unit 202 determines the identity of the server to which a request is directed, interface unit 202 opens a connection to that server if a free connection is not already open. *See* Susai, col. 5, lines 16-21. Interface unit 202 then determines the response time of the requested server based on the actual past response times.

See Susai, col. 5, lines 22-49. The estimated current response time is then compared to a threshold value. *See* Susai, col. 5, lines 50-51. If the requested server cannot provide an acceptable response time, then interface unit 202 puts the requesting client "on-hold". *See* Susai, col. 5, lines 59-61.

When a client is put on-hold, interface unit 202 determines the approximate waiting time for the client. *See* Susai, col. 6, lines 44-46. Depending on the approximate waiting time, interface unit 202 determines the on-hold request to send to on-hold sever 204 as different content is designed to be available depending on the waiting time. *See* Susai col. 6, lines 61-66. Interface unit 202 translates the initial on-hold request and passes it to on-hold server 204. *See* Susai, col. 7, lines 25-27. After request processing, interface unit 202 receives a response from the on-hold server and passes the response to the client. *See* Susai, col. 7, lines 27-31. While the client is on-hold, various types of information can be provided to the client, including music, sports, news and so forth. *See* Susai, col. 6, lines 1-4.

While a client is on-hold, interface unit 202 can continue to determine the current response time of a requested server. *See* Susai, col. 8, lines 12-17. If the current estimate response time is still above the threshold response time, the client remains on-hold. *See* Susai, col. 8, lines 20-24. If the current estimated response time is below the threshold, interface unit 202 determines if the client is the next to be serviced by the requested server, based for example on FIFO or LIFO queuing. *See* Susai, col. 8, lines 26-35. If the client is the next to be serviced by the requested server, interface unit 202 determines if the client is done with on-hold server 204. *See* Susai, col. 8, lines 36-37. If the user is finished with on-hold server 204 (as indicated by the user or determined by the system), the user is taken off-hold and clients request is passed to the requested server. *See* Susai, col. 8, lines 37-49.

Thus, in Susai, a client issues a request to a requested server. Interface unit 202 receives the request and compares the requested server's expected response time a threshold. If the requested server's expected response time is too long, interface unit 202 issues an on-hold request to on-hold server 204 and forwards the response from on-hold server 204 to the client. When the requested server's expected response time drops below the threshold and the client can be taken off of on-hold, interface unit 202 sends the request from the client to the requested server and forwards the response from the requested server to the client. Consequently, when interface unit 202 receives a request from a client it either i) forwards an on-hold request to on-hold server 204 for on-hold content and forwards the response from the

on-hold server to the requesting client; or ii) forwards the request to the requested server and forwards the response from the requested server to the client.

3. Improvements Over the Prior Art

The invention of the Application improves upon the conventional prior art of handling inquiry commands by caching inquiry data. Once the inquiry data corresponding to a target device is stored (e.g., at a router), the device caching the inquiry data can respond to inquiry commands to that target device (i.e., requests for the inquiry data corresponding to that target device) if the target device is busy, offline, broken, missing or cannot respond for some other reason. *See* Application ¶0007. Consequently, inquiry commands requesting inquiry data corresponding to a particular target device can be serviced even if the target device itself cannot respond to the inquiry command.

4. Rejections Under 35 U.S.C. §102(e)

The Examiner rejected all of the claims in the Application under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,725,272. To anticipate a claim, a reference must teach every element of the claim. Although the terminology can be different, the elements must be arranged in the manner required by the claim M.P.E.P. 2131. The Appellant respectfully submits that Susai does not teach every element of the Claims 1-19 and 22.

4.1 Rejections Under 35 U.S.C. 102(e) of Claims 1-10 and 22

4.1.1 Examiner's / Appellant's Positions Regarding Anticipation

The Examiner asserts that Susai shows each and every limitation of Claims 1 and 22. The Examiner incorrectly cites various portions of Susai as showing storing inquiry data corresponding to a target device in a cache memory"; "receiving a request for the inquiry data corresponding to the target device"; "reading the inquiry data from the cache memory"; and "providing the inquiry data corresponding to the target device in response to the request." The Appellant respectfully submits that Susai fails to disclose any of these limitations.

4.1.2 Not All Claim Elements Are Shown:

Independent Claim 1 of the Application recites:

> A method of using a router to cache inquiry data corresponding to a
>   target device in a network having a plurality of client devices, the
>   method comprising:
> storing inquiry data corresponding to a target device in a cache
>   memory;
> receiving a request for the inquiry data corresponding to the target
>   device;
> reading the inquiry data from the cache memory; and
> providing the inquiry data corresponding to the target device in
>   response to the request.

Independent Claim 22 of the Application recites:

> A computer readable medium, wherein the computer
>   readable medium contains one or more instructions
>   which are configured to cause a computer to perform the
>   method of using a router to cache inquiry data
>   corresponding to a target device in a network having a
>   plurality of client devices, the method comprising:
> storing inquiry data corresponding to a target device in a
>   cache memory;
> receiving a request for the inquiry data corresponding to the
>   target device;
> reading the inquiry data from the cache memory; and
> providing the inquiry data corresponding to the target device
>   in response to the request.

Thus, both independent Claims 1 and 22 include the features of "storing inquiry data corresponding to a target device in a cache memory"; "receiving a request for the inquiry data corresponding to the target device"; "reading the inquiry data from the cache memory"; and "providing the inquiry data corresponding to the target device in response to the request." Thus, according to both Independent Claim 1 and Claim 22, when a request for inquiry data corresponding to a target device is received, the request can be serviced from cache memory of a router rather than forwarded to the target device.

4.1.2.1 Susai Does not Teach Inquiry Data

As described in ¶0005 of the Application, inquiry data relates to the target device itself and may include, for example, serial number, manufacturer, configuration, version number or similar data corresponding to the target device. A request for inquiry data, or an inquiry command, is thus not simply a request for *any* data stored on a target device, but is a request

for data *about the target device itself*. *See* Application ¶0005-0006. As one example, in a system that utilizes the SCSI protocol such as the example described in ¶0022 of the Application, the SCSI standard provides an inquiry command for the SCSI protocol to which particular data corresponding to the target device is returned. In particular, as defined by the SCSI standard, SCSI INQUIRY DATA can include: vendor identification field, product identification field, product revision level field and other data corresponding to the target device.

Requests for inquiry data may be submitted for various reasons. For example, when a new host is booted, it checks to see which other devices are connected to the network. *See* Application ¶0006. Hosts may also periodically use inquiry commands to obtain information regarding the availability of devices on the network. *See* Application ¶0006. If a device responds to the request, the host will receive the responsive inquiry data and will be aware that the device is available. *See* Application ¶0006. If the device does not respond, the host may assume either that the device is no longer connected to the network or that the device is no longer functioning properly. *See* Application ¶0006.

In summary, inquiry data corresponding to the target device pertains to the target device itself. Requests for inquiry data corresponding to a target device issued to the target device, particularly a sequential access target device, may time out if received following a time consuming command, thus causing the command issuing host to erroneously believe that the target device no longer exits on a network.

Susai does not appear to address inquiry data and requests for inquiry data. The requests processed by the interface unit in Susai appear to be HTTP requests or other TCP/IP requests for information stored on a target device but not information about the target device itself (e.g., serial number, manufacturer and other such inquiry data). *See* Susai, col. 9, lines 5-14. The only concrete example of a request for data is a GET request for a file at path name /sales/forecast.html, which is simply a request for data on a target device not a request for data about the target device. *See* Susai, col. 10, lines 27-42. Nothing in Susai teaches inquiry data corresponding to a target device or a request for inquiry data corresponding to a target device. For this reason alone, Susai does not disclose "storing inquiry data corresponding to the target device"; "receiving a request for inquiry data corresponding to the target device"; "reading the inquiry data" or "providing inquiry data corresponding to the target device." Therefore, Susai cannot anticipate Claims 1 and 22.

4.1.2.2 Susai Does not Teach Responding to A Request by Providing the Requested Data from A Cache Memory

Claims 1 and 22 recite "storing inquiry data corresponding to a target device in a cache memory"; "receiving a request for the inquiry data corresponding to the target device"; "reading the inquiry data from the cache memory"; and "providing the inquiry data corresponding to the target device in response to the request." Thus, the router of Claims 1 and 22 stores inquiry data corresponding to a target device in cache memory and uses the inquiry data already stored in cache memory to respond to requests for inquiry data.

As described in the Application, for example, a router routes data between the hosts and target devices. *See* Application ¶0022. When the router receives inquiry data from a target device, the router performs both the functions of i) routing the data to the requesting host and ii) storing the inquiry data in the cache (i.e., for responding to later requests for inquiry data from the same target device). *See* Application ¶0029 (stating "the router does two things with the data: it stores the data in its cache; and it forwards the data to the host device that originally requested it"). Because the router of Claims 1 and 22 stores inquiry data in a cache memory, it can respond to requests for the inquiry data. When the router receives a subsequent command from the host device and the target device is busy, the router will provide a response if possible. "In order to provide a response, the router must have the data necessary to service the request stored in its cache. It therefore, checks to the cache to determine whether or not it has the data. If the data is stored in the cache, the data is read from the cache and then forwarded to the host device in response to the inquiry command." *See* Application ¶0030. This allows the router to respond for the target device when the target device is busy. *See* Application ¶0026.

In the final office action, the Examiner cited FIGRE 2, column 4, lines 16-33 and column 5, lines 66 through column 6, lines 17 as showing each of the claim limitations. FIGURE 2 of Susai simply shows a network diagram. *See* Susai, FIGURE 2. Column 4, lines 16-33 of Susai states:

> FIG. 2 is a network context diagram for an interface unit 202 and an on-hold server(s) 204 according to a preferred embodiment of the present invention. In a preferred embodiment, interface unit 202 is an intelligent network interface card with a CPU inside a server. Interface unit 202 can also be intelligent box sitting outside the server, in which case it can serve more than one server. Interface unit 202 can also be a load balancer, bandwidth manager

> firewall, proxy-cache, router, switch, computer system, or
> any other network device that is located between a client
> and server. In theory, on-hold server 204 represents the
> world's largest web site. Users (via clients) are temporarily
> redirected to on-hold server 204 when their requested
> server is too busy to accommodate their page requests.
> On-hold server(s) 204 may be physically located within
> interface unit 202, may be an independent server directly
> connected to interface unit 202 or may be an independent
> server located anywhere on the Internet.

This portion of Susai simply discusses redirecting a request to an on-hold server, but does not teach or suggest "storing inquiry data corresponding to a target device", "receiving a request for the inquiry data", "reading the inquiry data from the cache memory" or "providing the inquiry data corresponding to the target device."

The other cited portion of Susai--Column 5, line 66-col. 6, line 17--states:

> Interface unit 202 puts the client on-hold, as shown in
> step 310, and as more fully described with respect to FIG.
> 4A and FIG. 4B, below. While the client is on-hold there is
> no limit to the types of information that can be provided to
> the client by the present invention, including music,
> sports, news and so forth. It is important to note that there
> may be one or more on-hold servers 204 utilized by the
> present invention that the client may be directed to. In the
> case of having multiple on-hold servers 204 to choose
> from, the present invention may use various factors in
> determining which on-hold server 204 to direct the client
> to. These factors may include such things as client IP
> address, type of request and on-hold server 204 load.
> Hence, on-hold service may be a distributed service. An
> on-hold portal by definition should relinquish control to the
> request controller. This control switching is initiated by
> client-side intelligence (Java Applets/Scripts), interface
> memory (where the interface remembers the held
> requests) and on-hold server 204 initiated re-direction.
> The re-direction can be at the IP level or at the HTTP
> level.

Again, this portion of Susai simply discusses redirecting a request to an on-hold sever that serves content while a request is on-hold.

FIGURE 7 and the accompanying discussion provide an example of how a request is handled according to the system of Susai. According to Susai:

> First, interface unit 202 opens a connection with client 700
> using network address 1 provided by client 700, as shown
> by flow 702. Once the connection is opened, interface unit

> 202 receives a GET request from client 700 specifying a
> path name of/sales/forecast.html, as shown by flow line
> 704. Assume at this point, interface unit 202 determines
> that the GET request is for requested server 701 and that
> the estimated response time for requested server 701 is
> such that client 700 must be put on-hold . . . .
>
> Interface unit 202 maps the appropriate GET on-hold
> request to on-hold server 204. . . . Interface unit 202
> forwards the GET on-hold request to on-hold server 204,
> as shown by flow line 706. On-hold server 204 responds
> with the requested web page, as shown by flow line 708.
> Interface unit 202 forwards the web page to client 700, as
> shown by flow line 709.

See Susai, col. 10, lines 18-38 (emphasis added). As the emphasized portions
demonstrate, when a client is put "on-hold," requests for data are not responded to with a
cached version of the requested data but are responded to with arbitrary content from an on-
hold server. In this case, the on-hold server responds to the request while the interface unit of
Susai simply acts as a router to forward the content from the on-hold server to the requesting
client. There is no disclosure that the interface stores the response from the on-hold server in a
cache memory or that the interface unit responds to a subsequent request using data read from
the cache memory of the interface unit

Susai goes on to describe how the request is handled when the client is taken off of on-
hold, stating:

> Once interface unit 202 determines that client 700 is
> ready to be taken off on-hold (as described in FIG. 5), the
> GET request from client 700 specifying a path name of
> /sales/forecast.html is sent or replayed to requested
> server 701, as shown by flow line 710. But, prior to this,
> client 700 sends a WAKE command to interface unit 202
> and interface unit 202 responses back to client 700, as
> shown by flow line 718 and 719, respectively. Next,
> requested server 701 responds with the requested web
> page, as shown by flow line 712. Interface unit 202
> forwards the web page to client 700, as shown by flow
> line 714. Finally, interface unit 202 closes the connection
> with client 700 using network address 1, as shown by flow
> line 716.

See Susai, col. 10, lines 49-61 (emphasis added). According to this portion of Susai, when a
client is taken off of on-hold, the request from that client is forwarded to the requested server

and the reply from the requested server is forwarded to the client. Again, in this case, the interface unit simply routes a response to the appropriate client from the requested server but does not store the response in a cache memory or read already stored data from the cache memory to respond to the request.

While the interface unit of Susai may provide some undisclosed memory functionality to route data, this functionality is part of the routing data back and forth between the clients and servers. There is no disclosure or teaching of "storing inquiry data corresponding to a target device in a cache memory"; "receiving a request for the inquiry data corresponding to the target device"; "reading the inquiry data from the cache memory"; and "providing the inquiry data corresponding to the target device in response to the request".

4.1.2.3 Summary

Susai does not address "inquiry data corresponding to a target device" and therefore cannot teach the recitations of "storing inquiry data corresponding to a target device in a cache memory"; "receiving a request for the inquiry data corresponding to the target device"; "reading the inquiry data from the cache memory"; and "providing the inquiry data corresponding to the target device in response to the request."

Moreover, even if the data in Susai is erroneously interpreted to be inquiry data, Susai does not teach "storing inquiry data corresponding to a target device in a cache" and, in response to a request for the inquiry data "reading the inquiry data from the cache memory" and "providing the inquiry data corresponding to the target device in response to the request." Instead, Susai teaches that requests to a requested server are either responded to by an on-hold server (i.e., with data that was not requested in the request) or is responded to by the requested server (i.e., by the server that is the target of the request). There is no disclosure or teaching that the interface unit stores response data in a cache memory and reads response data from a cache memory to provide a response to a request for that data.

Consequently, Susai does not anticipate Claims 1 or 22. By virtue of their dependency on Claim 1, Susai also does not anticipate Claims 2-10 for the foregoing reasons.

4.2 Rejections Under 35 U.S.C. 102(e) of Claims 10-19

4.2.1 Examiner's / Appellant's Positions Regarding Anticipation

The Examiner asserts that Susai shows each limitation of Claim 11. The Appellant respectfully submits that Susai fails to teach "[a] router [configured] to store inquiry data received form the one or more target devices and to provide at least a portion of the stored inquiry data in response to a request for inquiry data corresponding to one of the target devices.

4.2.2 Not All Claim Elements Are Shown

Independent Claim 11 of the Application recites:

> a device comprising:
> a router configured to route data between one or more hosts and one
>   or more target devices; and
> a cache memory coupled to the router;
> wherein the router is configured to store inquiry data received from
>   the one or more target devices and to provide at least a portion
>   of the stored inquiry data in response to a request for inquiry
>   data corresponding to one of the target devices that is busy.

According to Claim 11, a router routes data between one or more hosts and one or more target devices. The router also stores inquiry data received from the target devices. When the router receives a request for inquiry data corresponding to a target device that is busy, the router can return a portion of the stored inquiry data in response to the request.

4.2.2.1 Susai Does Not Teach Inquiry Data

As discussed above, Susai does not appear to address inquiry data. The requests in Susai appear to be HTTP requests or other TCP/IP requests for information stored on a target device but not information about the target device itself (e.g., serial number, manufacturer and other such inquiry data). See Susai, col. 9, lines 5-14. The only concrete example of a request for data is a GET request for a file at path name /sales/forecast.html, which is simply a request for data on a target device not data about the target device. See Susai, col. 10, lines 27-42. Nothing in Susai teaches inquiry data corresponding to a target device or a request for inquiry data corresponding to a target device. For this reason alone, Susai cannot disclose a router

"configured to store inquiry data" or to "provide at least a portion of the stored inquiry data." Consequently, Susai cannot anticipate Claim 11.

4.2.2.2 Susai Does Not Teach a Router Configured to Respond to A Request for Inquiry Data Corresponding to One of the Target Devices That is Busy Using Stored Inquiry Data

Claim 11 recites a router configured to route data between one or more hosts and one or more target devices and "to store inquiry data received from the one or more target devices and to provide at least a portion of the stored inquiry data in response to a request for inquiry data corresponding to one of the target devices that is busy." Thus, according to Claim 11, the device that routes data between hosts and target devices also stores inquiry data received from the target devices. When the router receives a request for inquiry data corresponding to a target device that is busy, the router can respond with the stored inquiry data.

In rejecting Claim 11, the Examiner cited FIGURE 2 and column 4, lines 16-33 as showing "a router configured to route data between one or more hosts and one or more target devices." Column 4, lines 16-33 of Susai, reproduced above, describe that an interface unit 202 can be any number of network devices and FIGRUE 2 of Susai shows interface unit 202 located between clients and servers. Thus, it appears that the Examiner is considering the interface unit to be the router.

The Examiner went on to cite col. 4, lines 16-33 and col. 5, line 66 – col. 6, line 41 of Susai as disclosing that "the router is configured to store inquiry data received from the one or more target devices and to provide at least a portion of the stored inquiry data in response to a request for inquiry data to one of the target devices." Column 4, lines 16-33 simply describe that "users are temporarily redirected to on-hold server 204 when their requested server is too busy." See Susai, column 4, lines 26-27. Again, according to Susai, a user request is simply put on on-hold. There is nothing in Susai that teaches or suggests a router that stores inquiry data corresponds to a target device and responds to requests for inquiry data using the stored inquiry data.

Susai, at, column 5, line 66 through column 6, line 41 also does not teach a router "configured to store inquiry data received from the one or more target devices and to provide at least a portion of the stored inquiry data in response to a request for inquiry data corresponding

to one of the target devices that is busy" and, indeed, teaches something quit different. This section of Susai teaches that an interface unit puts the client on-hold. *See* Susai, column 5, lines 66-67. While the client is on-hold, information can be provided to the client such as music, sports, news and so forth. *See* Susai column 6, lines 1-4. This information is provided by the on-hold server, not from data stored at the interface unit. *See* Susai, col. 10, lines 34-38, stating "on-hold server 204 responds with the requested web page . . . interface unit 202 forwards the web page to the client . . . ." When a client request is ready to be taken off on-hold, the interface unit of Susai "translates the client request and passes it to the requested server." *See* Susai, col. 6, lines 25-27. Thus, if a requested server is busy, the interface unit of Susai puts the request on-hold, forwards an on-hold request to the on-hold server, and forwards a response from the on-hold server to the client. The interface unit does not respond with inquiry data previously stored by the interface unit.

Thus, even when the interface unit of Susai is considered to be a router, Susai does not disclose or teach all the limitations of Claim 11. Particularly, when the interface unit of Susai receives a request directed to a requested server that is busy, Susai generates an on-hold request to an on-hold server and routes the response of the on-hold server to the requesting client. The interface unit does not respond with already stored inquiry data from the one or more target devices.

4.2.2.3 Summary

Susai does not address "inquiry data corresponding to a target device" and therefore cannot teach the recitations of a router that is "configured to store inquiry data received from the one or more target devices and to provide at least a portion of the stored inquiry data in response to a request for inquiry data corresponding to one of the target devices that is busy."

Furthermore, when a requested server is busy, the interface unit of Susai simply routes responses from the on-hold server to the requesting client. The interface unit of Susai does not "provide at least a portion of the stored inquiry data in response to a request for inquiry data corresponding to one of the target devices that is busy."

Consequently, Susai does not anticipate Claim 11. By virtue of their dependency on Claim 11, Susai also does not anticipate Claims 12-19 for the foregoing reasons.

5. Conclusion

As explained above, the Appellant believes that Susai does not show each limitation of claims 1, 11 and 22, and that the corresponding rejection of claims 1-19 and 22 should properly be withdrawn. The Appellant therefore respectfully requests that all of the rejections be withdrawn and that all the pending claims 1-19 and 22 be allowed.

A check in the amount of $500.00 is included with this filing. A request for a one month extension of time and check in the amount of one hundred and twenty ($120) were previously filed on June 19, 2006. While Applicant believes no further fees are due and owing, if Applicant is in error, the Commissioner is hereby authorized to deduct the appropriate amount from Deposit Account No. 50-3183 of Sprinkle IP Law Group.

Respectfully Submitted,

Sprinkle IP Law Group
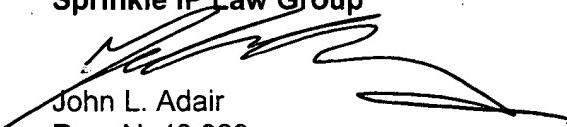
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VIII. CLAIMS APPENDIX

1.   A method of using a router to cache inquiry data corresponding to a target device in a network having a plurality of client devices, the method comprising:

storing inquiry data corresponding to a target device in a cache memory;

receiving a request for the inquiry data corresponding to the target device;

reading the inquiry data from the cache memory; and

providing the inquiry data corresponding to the target device in response to the request.

2.   The method of claim 1, further comprising collecting the inquiry data corresponding to the target device prior to storing the inquiry data corresponding to the target device.

3.   The method of claim 2, wherein collecting the inquiry data corresponding to the target device comprises detecting the inquiry data corresponding to the target device as the inquiry data corresponding to the target device is transmitted from the target device to a requesting host device.

4.   The method of claim 2, wherein collecting the inquiry data corresponding to the target device comprises detecting a request for the inquiry data corresponding to the target device as the request is routed from a host to the target device and copying the inquiry data corresponding to the target device which is returned by the target device in response to the request.

5.   The method of claim 1, wherein providing the inquiry data corresponding to the target device in response to the request comprises determining whether the target device is busy, and providing the stored inquiry data corresponding to the target device if the target device is busy and providing inquiry data returned by the target device if the target device is not busy.

6.   The method of claim 5, wherein if the target device is not busy, the inquiry data that is returned by the target device in response to the request is stored in the cache memory in place of previously stored inquiry data.

7.   The method of claim 1, wherein the inquiry data from the cache memory is provided to the target device in response to the request regardless of whether or not the target device is busy.

8.   The method of claim 1, further comprising storing inquiry data corresponding to each of a plurality of target devices, receiving requests for the inquiry data corresponding to one or more of the target devices, determining whether the corresponding target devices are busy and, for each of the target devices that is busy, returning the corresponding stored inquiry data, and, for each of the target devices that is not busy, returning the corresponding inquiry data returned by the target device.

9.   The method of claim 1, further comprising: upon receiving a first request for inquiry data, forwarding the first request to the target device regardless of whether or not the target device is busy, storing inquiry data returned in response to the first request, forwarding inquiry data returned in response to the first request to a requesting device and, in response to subsequent requests, reading the inquiry data returned in response to the first request from the cache memory and providing the inquiry data returned in response to the first request in response to the subsequent requests.

10.   The method of claim 1, further comprising determining whether a received command comprises a request for inquiry data and: if the received command comprises a request for inquiry data, reading the inquiry data from the cache memory and providing the inquiry data corresponding to the target device in response to the request; and if the received command does not comprise a request for inquiry data, forwarding the command to the target device for execution.

11.   A device comprising:
            a router configured to route data between one or more hosts and one or more target
                devices; and
            a cache memory coupled to the router;
            wherein the router is configured to store inquiry data received from the one or more
                target devices and to provide at least a portion of the stored inquiry data in response
                to a request for inquiry data corresponding to one of the target devices that is busy.

12. The device of claim 11, wherein the router is configured to detect the inquiry data as the inquiry data is transmitted from the target device to a requesting host device.

13. The device of claim 11, wherein the router is configured to detect a request for the inquiry data as the request is routed from a host to the target device and copying the inquiry data which is returned by the target device in response to the request.

14. The device of claim 11, wherein the router is configured to determining whether the target device is busy, and provide the stored inquiry data if the target device is busy and providing inquiry data returned by the target device if the target device is not busy.

15. The device of claim 14, wherein, if the target device is not busy, the router is configured to store the inquiry data returned by the target device in response to the request in the cache memory in place of previously stored inquiry data.

16. The device of claim 11, wherein the router is configured to provide the inquiry data from the cache memory to the target device in response to the request regardless of whether or not the target device is busy.

17. The device of claim 11, wherein the router is configured to store inquiry data corresponding to each of a plurality of target devices, to receive requests for the inquiry data corresponding to one or more of the target devices, to determine whether the corresponding target devices are busy and to return the corresponding stored inquiry data for each of the target devices that is busy, and returning the corresponding inquiry data returned by the target device for each of the target devices that is not busy.

18. The device of claim 11, wherein if the inquiry data is not stored in the cache, the router is configured to: upon receiving a first request for inquiry data, forward the first request to the target device regardless of whether or not the target device is busy; store inquiry data returned in response to the first request; forward inquiry data returned in response to the first request to a requesting device; and, in response to subsequent requests, reading the inquiry data returned in

response to the first request from the cache and providing the inquiry data returned in response to the first request in response to the subsequent requests.

19.   The device of claim 11, wherein the router is configured to determine whether a received command comprises a request for inquiry data and wherein the router is configured to: if the received command comprises a request for inquiry data, read the inquiry data from the memory and provide the inquiry data corresponding to the target device in response to the request; and if the received command does not comprise a request for inquiry data, forward the command to the target device for execution.

20.   Withdrawn

21.   Withdrawn

22.   A computer readable medium, wherein the computer readable medium contains one or more instructions which are configured to cause a computer to perform the method of using a router to cache inquiry data corresponding to a target device in a network having a plurality of client devices, the method comprising:

storing inquiry data corresponding to a target device in a cache memory;

receiving a request for the inquiry data corresponding to the target device;

reading the inquiry data from the cache memory; and

providing the inquiry data corresponding to the target device in response to the request.

IX. EVIDENCE APPENDIX

Appellants believe that no additional evidence is to be presented.

X. RELATED PROCEEDINGS APPENDIX

Appellants believe that there are no related appeals or interferences.